

Claims:

1. A method of generating an image of a region in a turbid medium, comprising the steps of:

illuminating a first plurality of locations along a first line in a turbid medium using beams of light;

focusing a camera having a field-of-view (FOV) such that said first plurality of locations reside within said FOV wherein a first image is generated;

illuminating a second plurality of locations along a second line in said turbid medium using beams of light, said second line being displaced relative to said first line;

focusing said camera such that said second plurality of locations reside within said FOV wherein a second image is generated;

illuminating a third plurality of locations along a third line in said turbid medium using beams of light, said third line being displaced relative to said first line and said second line with said second line being between said first line and said third line;

focusing said camera such that said third plurality of locations reside within said FOV wherein a third image is generated; and

subtracting, in terms of amplitude associated therewith, a portion of each of said first image and said

24 third image from the entirety of said second image, wherein a
25 resulting image is generated.

1 2. A method according to claim 1 wherein said beams of light
2 are laser beams.

1 3. A method according to claim 1 wherein said turbid medium
2 is water and said beams of light have wavelength indicative
3 of blue light.

1 4. A method according to claim 1 wherein said turbid medium
2 is water and said beams of light have wavelength indicative
3 of red light.

1 5. A method according to claim 1 wherein said turbid medium
2 is one of fog and smoke, and wherein said beams of light have
3 wavelength indicative of infrared light.

1 6. A method according to claim 1 wherein said portion is
2 approximately 0.5.

1 7. A method according to claim 1 wherein said steps of
2 focusing include the step of keeping said FOV stationary.

1 8. A method according to claim 1 wherein said first line,
2 said second line and said third line are parallel to one
3 another.

1 9. A method according to claim 1 wherein each of said first
2 plurality of locations, said second plurality of locations,
3 and said third plurality of locations is a discrete location.

1 10. A method according to claim 1 wherein said first
2 plurality of locations are contiguous along said first line,
3 said second plurality of locations are contiguous along said
4 second line, and said third plurality of locations are
5 contiguous along said third line.

1 11. A method of generating an image of a region in a turbid
2 medium, comprising the steps of:

3 focusing a camera's field-of-view (FOV) at a region of
4 a turbid medium;

5 illuminating a first plurality of locations along a
6 first line in said region using beams of light;

7 activating said camera to generate a first image;

8 illuminating a second plurality of locations along a
9 second line in said region using beams of light, said second
10 line being adjacent to said first line;

11 activating said camera to generate a second image;

12 illuminating a third plurality of locations along a
13 third line in said region using beams of light, said third
14 line being adjacent to said second line wherein said second
15 line is between said first line and said third line;

16 activating said camera to generate a third image; and

17 subtracting, in terms of amplitude associated
18 therewith, a portion of each of said first image and said
19 third image from the entirety of said second image, wherein a
20 resulting image is generated.

1 12. A method according to claim 11 wherein said beams of
2 light are laser beams.

13. A method according to claim 11 wherein said turbid medium is water and said beams of light have wavelength indicative of blue light.

1 14. A method according to claim 11 wherein said turbid
2 medium is water and said beams of light have wavelength
3 indicative of red light.

1 15. A method according to claim 11 wherein said turbid
2 medium is one of fog and smoke, and wherein said beams of
3 light have wavelength indicative of infrared light.

1 16. A method according to claim 11 wherein said portion is
2 approximately 0.5.

1 17. A method according to claim 11 wherein said first line,
2 said second line and said third line are parallel to one
3 another.

1 18. A method according to claim 11 wherein each of said
2 first plurality of locations, said second plurality of
3 locations, and said third plurality of locations is a
4 discrete location.

1 19. A method according to claim 1 wherein said first
2 plurality of locations are contiguous along said first line,
3 said second plurality of locations are contiguous along said
4 second line, and said third plurality of locations are
5 contiguous along said third line.

1 20. A method of generating an image of a region in a turbid
2 medium, comprising the steps of:

3 focusing a camera's field-of-view (FOV) at a region of
4 a turbid medium;

5 illuminating a first plurality of locations along a
6 first line in said region using beams of light;

7 activating said camera to generate a first image;

8 illuminating a second plurality of locations along a
9 second line in said region using beams of light, said second
10 line being adjacent and parallel to said first line;

11 activating said camera to generate a second image;

12 illuminating a third plurality of locations along a
13 third line in said region using beams of light, said third
14 line being adjacent and parallel to said second line wherein
15 said second line is between said first line and said third
16 line;

17 activating said camera to generate a third image; and

18 subtracting, in terms of amplitude associated
19 therewith, one-half of each of said first image and said
20 third image from the entirety of said second image, wherein a
21 resulting image is generated.